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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,747	04/01/2002	Thomas Kraus	740123-402	1888

22204 7590 01/17/2003

NIXON PEABODY, LLP
8180 GREENSBORO DRIVE
SUITE 800
MCLEAN, VA 22102

EXAMINER

SCHEUERMANN, DAVID W

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 01/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/926,747

Applicant(s)

KRAUS ET AL.

Examiner

David W. Scheuermann

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 01 April 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the meaning of the terms ASIC and SMD is not set forth in the specification. Additionally, it is not clear what is meant by, "extrusion-coated conducting components."

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21 and 22 and 35 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is unclear what is meant by the terms ASIC and SMD. As to claim 35, it is not clear what is meant by the phrase "extrusion-coated conducting components."

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20, 21, 22 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "within a contour of the worm wheel, " renders claim 20 unclear. Assuming the external surface area of the worm wheel forms a contour, it is unclear how the electronic components can lie within that contour. This language also conflicts with the requirement, "wherein at least a portion of the electronic components is located between the worm wheel and the gearbox."

Re claims 21 and 22 it is unclear what meets and bounds are defined by the terms ASIC and SMD, respectively.

As to claim 35, it is not clear what is meant by the phrase "extrusion-coated conducting components."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19, 20-25, 28-30 rejected under 35 U.S.C. 102(b) as being anticipated by Mochizuki et al., US 4857812. In figure 2 Mochizuki et al. show electric drive motor 5 driving an unlabeled worm wheel, (the worm wheel is located in gear box 6 and is driven

by also unlabeled worm gear attached to or part of the motor shaft), cover 9, and circuit board 11 which is integrally attached to the cover 9. Cover 9 is viewed as part of gearbox 6.

As to claims 21 and 22, as best understood, note that Mochizuki et al. in figure 2, show electrical circuit components and chip components on circuit board 11. Re claim 28 and 29 note electrical connector 14 and electrical components shown on circuit board 11, respectively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. in view of Kenney et al., 4616164. Mochizuki et al. show electric drive motor 5 driving an unlabeled worm wheel, (the worm wheel is located in gear box 6 and is driven by also unlabeled worm gear attached to or part of the motor shaft), cover 9, and circuit board 11, which is integrally attached to the cover 9. Mochizuki et al. does not expressly disclose cover 9 being made of plastic or insulating material to which printed conductors are applied. In the same art of gear motor devices Kenney et al. teach making the gearbox housing and cover thereto out of thermoplastic, note column 5, lines 56 to 66. Kenney et al. also teach forming an electronic circuit on the gearbox housing cover as shown in figure 2. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the teachings of Kenney et al. to make the gearbox housing and cover of Mochizuki et al. out of plastic and form an electronic circuit on the cover. One of ordinary skill in the art would have been motivated to make these modifications to reduce manufacturing cost as set forth in Kenney et al., column 2 lines 30-35

Claims 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. in view of Schneider et al., 4614886. Mochizuki et al. show electric drive motor 5 driving an unlabeled worm wheel, (the worm wheel is located in gear box 6 and is driven by also unlabeled worm gear attached to or part of the motor shaft), cover 9, and circuit board 11. Mochizuki et al. does not expressly disclose a brush plate system. In the analogous art of motor drives, Schneider et al. teach forming a gear cover connector receptacle and brush plate out of a single piece of plastic. At the time

the invention was made, it would have been obvious to a person of ordinary skill in the art to use the teachings of Schneider et al. to make the brush holder, connector and cover of Mochizuki et al. out of a single piece of plastic. One of ordinary skill in the art would have been motivated to do this to reduce production costs and simplify mounting as suggested by Schneider et al., in column 1 lines 21-24.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Haar et al., US 4572979, teach using a plastic housing for motor brushes. Mitsugu et al., US 5003836, and Maxa, US 4935652, teach using position sensors in gear motors with worm gearing. Asakura et al. teach placing electrical circuitry inside a gear housing near a worm wheel as shown in figure 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David W. Scheuermann whose telephone number is (703) 308-9637. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 872-9319 for After Final communications.

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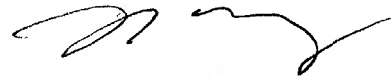
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Dws

January 6, 2003



NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800